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ABSTRACT

This paper reviews recent literature regarding the impact of teacher expectations on student performance. The first section reviews recent literature with respect to teacher expectations in which teacher characteristics were viewed as the dependent variable in the interaction. The focus of the second section is to review recent literature where the characteristics of the student were viewed as the dependent variable. The third section reviews research that investigated the mediating processes between teacher and student that contribute to teacher expectations and student performance. There was apparent agreement that teachers' predictions of test scores tended to be overestimated for high achievers and underestimated for low achievers. Student characteristics contributing to expectation included social class, attractiveness, ethnicity and perhaps gender. Models generally suggested that teachers' expectations are communicated to students through differential teacher treatment. (JD)

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An Annotated Bibliography of the Literature
Dealing With the Contributing
Factors of Teacher Expectations
on Student Performance

by

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Study Directed

by

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INTRODUCTION

Since publication of the controversial "Pygmalion in the Classroom" (Rosenthal and Jacobsen, 1968), there has been considerable research devoted to the understanding of teacher expectation bias. Rosenthal and Jacobsen indicated that when teachers were led to believe that certain students were exceptionally bright, those students tended to be more successful in school even though they were randomly chosen by the experimenter.

There is evidence that teachers create expectations based upon faulty information (e.g. Babad, 1985; Cooper and Tom, 1984) and that once these expectations are made, the teachers tend to hold on to them in spite of new information (Bognar, 1982).

According to Dusek and Joseph (1983), "There can be little doubt that understanding teacher expectancies is an important part of comprehending the nature of teacher evaluations of students" (327). In order for this evaluation to accurately reflect a student's performance, it is vital that the evaluation be based upon the student's performance itself, not upon irrelevant factors.

STATEMENT OF THE PROBLEM

Though the phenomenon of teacher expectations influencing student performance has been well-established, the contributing factors and the mediating processes that are involved are significant in the teaching-learning process.

PURPOSE OF THE STUDY

With the increasing movement toward accountability in schools today, as well as an ever-increasing dropout rate, it is important for teachers to be aware of all of the factors that influence student performance. One such factor is that of teacher expectations influencing student achievement. Originally described as the "Pygmalion Effect" by Rosenthal and Jacobsen (1968), it has been well-documented since then (e.g. Dusek and Joseph, 1983). If teachers are to provide all of their students with an equal opportunity for success, a working knowledge of how their expectations affect their students' performance is vital.

ORGANIZATION OF THE STUDY

The first part of this paper will review recent literature with respect to teacher expectations in which teacher characteristics were viewed as the dependent variable in the interaction. The focus of the second section is to review recent literature where the characteristics of the student were viewed as the dependent variable. The third section of the paper will review research that investigated the mediating processes between teacher and student that contribute to teacher expectations and student performance.

LIMITATIONS OF THE STUDY

There are literally hundreds of studies and articles on the topic of teacher expectations. This study is not meant to be an exhaustive review of the literature. Many of the studies have varied greatly in methodology and may not be entirely comparable. It is worth noting that not all of the studies controlled for all of the interrelations that exist between teachers and students. Teachers often are viewed as simply one variable. Differences between individual teachers may be a factor in communicating expectations (Weinstein, et al. 1987).

GLOSSARY

bias: "... tendency to weight a situation in favor of some interests or values at the expense of others" (Good 61).

bloomers: "... those students whom the teachers thought were underachievers and would show improvement..." (Van Oudenhoven and Siero 756).

cognitive dissonance theory: "... assures that a person behaves in a way which will maximize the internal consistency of his or her cognitive system..." (Harré and Lamb 93).

dependent variable: "A variable whose magnitude depends on, or is a function of another variable (or other variables)..." (Good 638).

mediation: "... a process whereby certain variables intervene between the stimulus and the response..." (Good 359).

nonbloomers: "... those students whom the teachers thought were certainly not underachievers..." (Van Oudenhoven and Siero 757).

self-fulfilling prophecy: "... a false definition of the situation evoking a new behavior which makes the originally false conception come true" (Merton 423).

sociopsychological climate: Results of an instrument developed at the Stanford Social Ecology Laboratory which assessed classroom climate based on "... relationship category... personal development category... systems maintenance and systems change category..." (Schultz 169).

sustained expectations: "... an opportunity for improved student performance is missed because a teacher responded to a student based on how the teacher expected the student to behave..." (Cooper and Tom 79).

teacher authoritarianism: "...measure[ment of] teachers' (a) intolerance of ambiguity and (b) cognitive complexity" (Tom, et al. 260).

teacher expectations: "...teacher perceptions of performance, achievement, ability, level of educational attainment... general social development, peer relations, relations with adults, and personality attributes" (Dusek and Joseph 329).

teacher treatment inventory: "... measure[ment of] children's perceptions of the frequency of teacher behaviors toward a hypothetical male or female high-or low-achieving student" (Weinstein, et al. 1082).

ANNOTATIONS

The Teacher as the Dependent Variable

Babad, Elisha A. "Some Correlates of Teachers' Expectancy Bias." American Educational Research Journal, 22 (1985): 175-183.

This study was done to determine the correlates of teachers' expectancy bias. Forty-one female teachers in Israel were shown handwritten answers to a Greek mythology short story. The answers were written by a fictitious student. Half of the teachers were told the student was an "excellent" student and half were told he was "weak." The teachers then assigned a grade to the worksheet.

The results showed the existence of expectancy bias due to labeling. The research did not show a relationship between ethnic origin and bias. Less experienced teachers showed more of a bias than more experienced teachers. Teachers who preferred a lecture style of instruction showed a stronger bias than those who preferred group teaching or an eclectic approach. No bias was found for those who preferred an open classroom approach. Finally, a strong correlation was found between expectancy bias and attitudes regarding integration. That is, those who believed that integration would show "no improvement" or "very high improvement" were more biased than those who believed integration would show "moderate" improvement.

Coladarci, Theodore. "Accuracy of Teacher Judgments of Student Responses to Standardized Test Items." Journal of Educational Psychology 78.2 (1986): 141-146.

This study was done to determine how accurate teachers are in predicting student responses to test questions. The researcher also investigated teacher accuracy as a function of the academic task being judged, variation among teachers in their accuracy of judgments and accuracy as a function of student academic achievement.

Eight teachers were asked to predict whether six randomly chosen students would answer selected test items correctly. Actual student results were analyzed with teacher predictions and the results were determined.

It was found that teachers were quite accurate in predicting student responses. However, teachers' judgments varied significantly in different parts of the test. Each teacher's accuracy varied greatly as well. Finally, teachers were least accurate in judging low-achieving students and most accurate in judging high-achieving students.

The researcher suggested that since high-achieving students were highly accurate on the test, their answers were easier for teachers to predict. He also suggested that individual accuracy of judgments may be a function of teacher experience.

Guskey, Thomas R. "The Effects of Change in Instructional Effectiveness on the Relationship of Teacher Expectations and Student Achievement." Journal of Educational Research 75.6 (1982): 345-349.

The purpose of this study was to determine what effect a change in instructional technique (the implementation of mastery learning) would have on teacher expectations and student achievement. Teachers rated student achievement prior to and at the end of an academic term. These ratings then were compared to course examination scores for a mastery learning class and a conventional class.

The results showed that teachers who experienced little change in their instructional effectiveness in either class had virtually unchanged pre- and post-semester ratings. However, teachers who experienced a positive change in their effectiveness showed consistent ratings in their conventional class, but their mastery learning class had more inconsistent ratings. The author argued that perhaps the introduction of mastery learning changed the teacher's differential treatment of students. Teachers may interact more consistently with high- and low-achieving students.

Harris, Monica J., Robert Rosenthal, and Sara E. Snodgrass. "The Effects of Teacher Expectations, Gender, and Behavior on Pupil Academic Performance and Self-Concept." Journal of Educational Research 79.3 (1986): 173-179.

The purpose of this study was to determine, using professional teachers and students as teachers, what effect gender and teacher expectations have on student academic performance and self-concept. The two groups of teachers taught kindergarten through second-grade students a short lesson which was videotaped. The relationships being studied were investigated through a rating system of teacher behaviors such as prompting, warmth and praise during the instructional session.

Though the results showed no significant expectation effects, other factors which were thought to be related to teachers' communication of expectations were significant. Female peer teachers were more on-task, less warm and less praising than males. The authors found that student performance corresponded positively with the amount of task orientation, explanations, nonverbal warmth and minimal lesson interference. Performance was negatively related to negative feedback from all teachers and off-task teaching behaviors.

Hoge, Robert D. and Robert Butcher. "Analysis of Teacher Judgments of Pupil Achievement Levels." Journal of Educational Psychology 76.5 (1984): 777-781.

This study was concerned with determining how accurate teachers' achievement judgments were compared to standardized test scores and to determine if ability was a factor that biased teachers in their judgments. Teachers rated students in terms of their probable performance on a standardized reading test, their basic intellectual ability and their motivation to do school work. The students took a standardized reading test and an IQ test.

The researchers found that there was a high correlation between teachers' judgments of student achievement and standardized achievement test scores. Some teachers tended to overestimate high-ability students and underestimate low-ability students.

Murphy, Joseph and Philip Hallinger. "Effective High Schools - What Are the Common Characteristics?" National Association of Secondary School Principals-Bulletin 69.477 (1985): 18-22.

This article described the results of a questionnaire that sought to determine common characteristics of effective high schools in California. The authors found eight factors which were common to effective schools, one of which was "high expectations." They found three factors which contributed to a school's level of expectations: administrators and teachers had high expectations for themselves and felt responsible for student achievement; a "strong press for academic excellence" (19) was created by the school; and policies and practices regarding homework and grading conveyed the importance of academic achievement.

Formal graduation requirements were not particularly high among the schools. High expectations also seemed to result in non-academic success.

Patriarca, Linda A. and Donna M Kraft. "Teacher Expectations and Student Achievement: The Ghost of Christmas Future." Curriculum Review 25.5-6 (1986): 48-50.

This study was designed to compare how accurate teachers were in predicting their students' academic performance with actual performance. The authors compared high-, middle- and low-achieving students.

The researchers found that teachers could accurately predict their students' achievement 40 percent of the time. The authors were concerned with how teachers could target instruction when they did not have a good idea of what their students knew. They also found that teachers overestimated the ability of high achievers and underestimated the ability of low achievers.

The researchers briefly reviewed the evidence for teacher expectation effects and provided the following suggestions to help avoid the effects. They recommended that teachers should confront their own expectations; they should examine their interactions with low achievers; they should have access to feedback regarding their own expectations through student conversations and questionnaires; and that a consultant may be helpful in providing feedback.

Raudenbush, Stephen W. "Magnitude of Teacher Expectancy Effects on Pupil IQ as a Function of the Credibility of Expectancy Induction: A Synthesis of Findings From Eighteen Experiments." Journal of Educational Psychology 76.1 (1984): 85-97.

The purpose of this study was to recognize the controversy surrounding the effect of teachers' expectations on IQ scores and to systematically test the various explanations of relevant experimental findings. The researcher subjected eighteen studies to statistical analyses in order to find similarities and differences among them.

The author found that the better a teacher knew a student at the time of the expectancy induction, the less the expectancy effect was. He found that there was no difference in expectancy for group versus individual IQ tests, nor was there a difference in expectancy for "blind" versus "aware" test administrators. Expectancy effects were larger for younger students (grades one and two) than for older students (grades three to six). The author suggested that prior knowledge of older students reduces expectancy effects. However, significant effects reappear at grade seven, perhaps because those experiments made sure teachers had little prior contact with the students, according to Raudenbush.

Cognitive dissonance theory was given as a way to explain teachers' rejection of information provided by the experiments if the student was well-known. The theory also explains teachers' acceptance of the new information from the experiment if it is sufficiently persuasive.

The Student as the Dependent Variable

Aloia, Gregory F. and Donald L. MacMillan. "Influence of the EMR Label on Initial Expectations of Regular-Classroom Teachers." American Journal of Mental Deficiency 88.3 (1983): 255-262.

This study examined the effects of the Educable Mentally Retarded (EMR) label upon the expectations of teachers. Specifically, the authors were interested in teachers' expectations regarding academic ability, behavioral potential, ease of working with the child and the teachers' general impressions of the child.

Some 1,114 elementary teachers were given fictitious cumulative school folders of students of varying attractiveness and varying abilities. Half were labeled EMR and half were not labeled. Teachers then completed a questionnaire on the four dependent variables listed above.

Results showed that the child with average attractiveness was rated higher in academic ability than those of low or high attractiveness. Teachers had higher expectations for all students who were superior in terms of academic ability, easier to work with and of whom the teachers had better overall impressions. Only in the behavioral potential category did average students receive higher ratings than the superior students.

The EMR label lowered teachers' expectations in all categories except (once again) behavioral potential, which was not related to labeling. Those students who were average in attractiveness and competency were most hurt by the label. Being highly attractive was not found to be a strong asset if combined with the EMR label.

Cecil, Nancy L. "Black Dialect and Academic Success: A Study of Teacher Expectations." Reading Improvement 25.1 (1988): 34-38.

The purpose of this study was to determine if teachers had higher expectations for Black children who spoke standard English than for those who spoke Black dialect. It also addressed whether teachers thought Black children who spoke standard English were more intelligent and were more likely to perform better in reading than Black-dialect-speaking Black children.

The researcher had fifty-two second-grade teachers listen to tapes of five standard-English-speaking Black children and five Black-English-speaking Black children. The students were all of average IQ. The teachers were then asked to rate each child's chance of completing second grade, his or her IQ and performance in reading class.

The results showed that teachers rated the standard-English-speaking Black children significantly higher in all of the above categories than the Black-English-speaking Black children. The need for sensitizing teachers to the above expectancy effect was stressed.

Dusek, Jerome B. and Gail Joseph. "The Bases of Teacher Expectancies: A Meta-Analysis." Journal of Educational Psychology 75.3 (1983): 327-346.

This article was an overview of seventy-seven studies that centered around the identification of the types of information that teachers use in making expectations about their students' achievement. Relevant studies were identified and a method of counting z-scores was used to determine if the combined results were significant.

The researchers found that physical attractiveness was generally correlated with higher academic as well as social and personality expectations. A significant number of articles showed that student gender was not a basis for teacher expectations of academic achievement, but girls were slightly favored in terms of social and personality expectations. The authors found very strong agreement among studies that the information in a students' cumulative folder correlated highly with teacher expectations. They noted that the reliability of the information received influenced teachers' expectations. Social class and race were found to be a basis for teachers' expectations, as was student conduct. The number of parents at home was not related to teacher expectations. Sex-role behavior, name stereotypes and previously-taught siblings were weakly associated with teacher expectations.

Emans, Robert. "Is the Purpose of Educational Research To Make the Job of Teachers Easier?" Action in Teacher Education 6.3 (1984):53-64.

This paper was a review of selected educational research topics that appeared to the author to be geared toward making the job of teachers easier. One such area was that of research on teacher expectations.

The author reported that there was good evidence that teachers do a poor job of forming expectations and predicting student achievement. Teachers' expectations were based on subjective data and could harm student performance.

He concluded that there is overwhelming evidence that children are treated according to subjective criteria rather than according to their abilities. This treatment influences how they do in school. Teacher expectations are related to their need to control students.

Gallagher, James J. and Kenneth Tobin. "Teacher Management and Student Engagement in High School Science." Science Education 71.4 (1987): 535-555.

The purpose of this study was to investigate interactions and activities in high school science classes. One specific area of interest was the interactions between teachers and students and the effect of teacher expectations on how students were engaged and received feedback.

Targeted students and males were involved in whole-class interactions more than others and low-ability classes received a more basic version of the curriculum than did high-ability classes. The authors noted that it was high-ability students who tended to pace the class. Low-ability classes generally were given more work designed to keep them busy.

Kenealy, Pamela, Neil Frede and William Shaw. "Influences of Children's Physical Attractiveness on Teacher Expectations." Journal of Social Psychology 128.3 (1988): 373-383.

In this study, researchers reviewed contradicting literature on the effect of attractiveness on teacher expectations. This study was done to determine the relationship between children's physical attractiveness and teacher judgments of confidence, leadership, sociability, popularity and academic ability.

The researchers conducted their study by determining attractiveness ratings for 1,006 students by judges, teachers, interviewers and the students themselves. The students' own teachers rated them in terms of the above criteria as well.

The analysis showed teachers, judges, interviewers and the children had reasonable agreement in their ratings of attractiveness. Focusing on teachers, their ratings of attractiveness were positively related to their judgments of sociability, popularity, academic achievement, confidence and leadership. Girls were generally rated higher than boys in the above categories.

Miller, Arden and William Asher. "Gender Differences as a Factor in Teachers' Perceptions of Students: A Comment." Perceptual Motor Skills 56.3 (1983): 856-858.

In this study, the authors reexamined an earlier study by Prawat and Jarvis (1980 - see p. 3 this study) which concluded that gender does not have an effect on teacher expectations. Miller and Asher argued that when a more appropriate statistical test is done to the data, gender does have a significant effect on teacher expectations. Girls were rated higher than boys in terms of academic achievement. Miller and Asher emphasized the need for further research.

Moore, Helen A and David R. Johnson. "A Reexamination of Elementary School Teacher Expectations: Evidence of Sex and Ethnic Segmentation." Social Science Quarterly 64.3 (1983): 460-475.

The purpose of this study was to take the results of data gathered in the early 1970's and reexamine it using discriminate techniques. The authors stated that discriminate techniques were appropriate given the segmented nature of the labor market.

The results of their statistical analysis showed that unlike earlier conclusions, there were significant differences in expectations based on gender and ethnicity. Specifically, expectations for females clustered around white-collar and clerical occupations, while expectations for males centered around unskilled laborer, skilled worker or managerial occupations. Their data reinforced the notion that female expectations are more dependent upon socioeconomic background than are male expectations.

As for the effects of ethnicity, their analysis showed that Asian students were classified into higher occupational categories than others. Black students with low socioeconomic scores were more likely to be placed in the unskilled laborer category when their grades were low, and less likely to be placed in the professional category when their grades were high. The ethnicity of Asians lessened the likelihood that low achievement would put them in the unskilled labor category.

Prawat, Richard S. and Robert Jarvis. "Gender Differences as a Factor in Teachers' Perceptions of Students." Journal of Educational Psychology 72.6 (1980): 743-749.

This study examined differences in teacher perceptions of students as a function of student gender. The authors were concerned with the notion that elementary teachers may have lowered perceptions of boys. They investigated whether lowered perceptions were caused by the male students' generally lower academic achievement or simply because of the students' gender. The authors examined how sex, reading achievement and IQ affected teachers' perceptions of students' behavior.

Their statistical analysis showed that "sex is not as influential a factor in teacher ratings as is IQ and reading achievement" (748). They concluded that information related to student abilities and achievement was more salient to elementary school teachers than was information about gender.

Richey, Linda S. and James E. Ysseldyke. "Teachers' Expectations for the Younger Siblings of Learning Disabled Students." Journal of Learning Disabilities 16.10 (1983): 610-615.

This study investigated how a student's Learning Disabled (LD) label affected teachers' expectations of his or her younger siblings. The study was conducted in two parts. In the first study, teachers predicted the performance of students whose older siblings were once taught by that same teacher. In the second, teachers rated the performance of fictitious younger siblings of their LD students.

With regard to the first study, the researchers found that teachers had lower expectations for LD siblings in the areas of reading level, general knowledge, visual-audio perception and memory skills. In the second study, they found that the teachers held lower expectations for hypothetical younger siblings.

The authors discussed the implications of their research. They suggested that educators be aware of the deleterious effect of the LD label to the students themselves as well as to their siblings.

Rolison, Michael A. and Frederic J. Medway. "Teachers' Expectations and Attributions for Student Achievement: Effects of Label, Performance Pattern and Special Education Intervention." American Educational Research Journal 22.4 (1985): 561-573.

This study was concerned with examining the effects of a student's special education label, past performance and past participation in special education on teachers' expectancies for future academic achievement. One hundred eighty teachers read three versions of a story about a fictitious student and were later asked to assess the student's future expectations and to provide causal attributions relative to his performance.

The study found that the teachers lowered their expectations when the student was labeled Educable Mentally Retarded, but it found no significant difference between students labeled Learning Disabled and regular students. The study found that if the students' past performance showed improvement, teachers were much more likely to expect future success than if they were not improving.

Tom, David Y.H., Harris Cooper, and Mary McGraw. "Influences of Student Background and Teacher Authoritarianism on Teacher Expectations." Journal of Educational Psychology 76.2 (1984) 259-265.

The purpose of this study was to compare teachers' expectations of academic performance and future job status of white and Asian elementary school students. The researchers also examined the effects of gender and social class on teachers' expectations. Finally, they checked to what extent teacher authoritarianism had affected expectations.

Tests were given to twenty-five white elementary teachers to determine their level of authoritarianism and cognitive complexity. The teachers were then given fictitious permanent records of six students. The students involved included middle-class male and female white students, middle-class Asian students (male and female) and lower-class white students of both sexes.

The results showed that the middle-class students had higher predicted grades and future job status than lower-class students. Grades were expected to be higher for girls than boys and for Asians than whites. White females were predicted to have a higher job status than Asian females but Asian males were rated higher than white males for future job status. High-authoritarian teachers had lower expectations for outgroup students than ingroup students. Low-authoritarian teachers did not show this.

The researchers noted that high- and low-authoritarian teachers may have differed on the stereotypes that they used. Low-authoritarian teachers tended to predict higher grades for Asian students.

Van Oudenhoven, Jan Pieter and Frans Siero. "Evaluative Feedback as a Determinant of the Pygmalion Effect." Psychological Reports 57.3 (1985): 755-761.

This study looked at evaluative feedback as a mechanism for teacher expectations affecting student achievement. "Bloomers" and "nonbloomers" were compared in terms of how often they received verbal and nonverbal feedback from teachers. Bloomers showed much academic potential while nonbloomers did not, as rated by teachers. The authors developed a behavioral rating instrument with ten verbal and nonverbal categories to be used by classroom observers. The researchers compared type of feedback with whether the students were considered bloomers.

The analysis showed that teachers give more negative nonverbal feedback to nonbloomers than bloomers. However, teachers give twice as much verbal praise to nonbloomers than bloomers. The researchers suggested that teachers' low expectations are shown nonverbally for it is harder to control nonverbal behaviors. They suggested also that verbal praise toward nonbloomers showed that they have achieved all that they could while achievers were prodded with verbal comments.

Mediating Processes

Bognar, Carl J. "Dissonant Feedback About Achievement and Teachers' Expectations." The Alberta Journal of Educational Research 28.3 (1982): 277-287.

This study was designed to determine the impact of achievement test results on teachers' expectations. The author investigated it in terms of cognitive dissonance theory.

Cognitive dissonance theory would predict that if teachers are given information that is contrary to their expectations, either the provided information would be rejected by the teacher or they would revise their expectations about the student.

Teachers were given feedback from standardized test results for comparison to teachers' earlier predictions about the students. The teachers answered a questionnaire to assess the impact of the feedback on their expectations.

The results showed that the test results were accepted for accurately estimated students. They were rejected for overestimated and underestimated students. Generally, teacher expectations showed little change due to achievement test feedback.

Brattesani, Karen A., Rhona S. Weinstein, and Hermine H. Marshall. "Student Perceptions of Differential Teacher Treatment as Moderators of Teacher Expectation Effects." Journal of Educational Psychology 76.2 (1984): 236-247.

This study tested two hypotheses that came from a student mediation model of teacher expectation effects. The authors were interested in first comparing student perceptions of teacher treatment in high-differential treatment classrooms with their perceptions in low-differential treatment classrooms. They also were interested in how teacher expectations contributed to the prediction of student achievement in the above two classroom types.

By comparing previous reading achievement scores and teacher expectations with student ratings of teacher treatment, the researchers found that only in high-differential treatment classes did students perceive teacher treatment that was consistent with the achievement or expectation levels held by their teachers. Perceptions of differential treatment corresponded with student reports of teacher treatment toward themselves.

They also found that teacher expectations contributed more to the prediction of student expectations in high-differential treatment classes than in low-differential treatment classes. They did this by analyzing teacher-ranked year-end achievement scores of students and a student-completed "Teacher Treatment Inventory."

The researchers stated that the findings supported a student mediated model of teacher expectation effects.

Cooper, Harris M. and David Y.H. Tom. "Teacher Expectation Research: A Review with Implications for Classroom Instruction." The Elementary School Journal 85.1 (1984): 77-89.

The purpose of this paper was to define types of teacher expectations and expectation effects, to look at evidence for those effects and to summarize how teacher expectations may be communicated to students.

Types of teacher expectations included estimates of present ability, expected improvement and discrepancies between teachers' expectations and tests. Self-fulfilling prophecies and sustained expectations were two kinds of effects of teacher expectations. In summarizing recent literature, the authors stated that teachers who allowed a variety of teaching styles often showed greater expectation effects. Some instructional behaviors caused more expectation effects than others. "Severe" self-fulfilling prophecies rarely occurred in classrooms. The authors stated that teacher expectations were often determined by students' ability and motivation.

Teacher expectations were communicated by high-expectation students receiving a warmer emotional atmosphere than low-expectation students. Also, high-expectation students received more opportunities to learn harder material, more clues during questioning, more praise and less criticism than low-expectation students.

The authors proposed a model for teacher expectation communication which stated that teachers want to control interactions with low-expectation students more than with high-expectation students. This control affects the feedback and socioemotional climate created for the student. Low-expectation students may then feel less motivated to achieve.

The authors suggested that teachers avoid forming expectations based upon unreliable information. Teachers should reevaluate expectations often and they should reward students' efforts and initiations.

Good, Thomas L. "Teacher Expectations and Student Perceptions: A Decade of Research." Educational Leadership 38.5 (1981): 415-421.

This article was a general review of the first decade of teacher expectation research. In it, the author described a model of how teacher expectations were communicated and stated that most research investigated differential treatment of students. He listed twelve basic research findings such as calling on low achievers less often and praising them less often. He contended that low achievers experienced a greater variety of teacher behaviors as they went through school. He noted how teachers varied greatly in how they treat high and low achievers and that low achievers often learned that being passive in school was most comfortable for them.

Good noted that with regard to the role of teacher expectations in student achievement, all studies were correlational but the correlations were very well supported. He suggested that the role of teacher training programs should be examined as they may be providing beginning teachers with inaccurate expectations. He noted that the extent to which students influenced expectation effects was not entirely clear.

Schultz, Raymond A. "Sociopsychological Climates and Teacher-Bias Expectancy: A Possible Mediating Mechanism." Journal of Educational Psychology 75.1 (1983): 167-173.

The purpose of this study was to determine the relationship between the sociopsychological climate of a classroom and teacher expectancy bias for students grouped according to race and ability.

All 124 undergraduate education majors in this study took one of four classroom environment questionnaires in which they were to respond as their students would. Hypothetical student groups were either non-white, average; non-white, above average; white, average; or white, above average.

Analysis of the data revealed that teachers would expect different groups to have different sociopsychological climates and may therefore treat these groups differently. The results suggested the non-white, average students were expected to desire a controlled environment. White, above-average students were expected to desire classrooms with less competition and less teacher control. Non-white, average students were expected to desire low levels of achievement. Average groups were thought to be less self-directed. As for achievement climate, race and ability were unrelated.

Weinstein, Rhona S., Hermine H. Marshall, Lee Sharp, and Meryl Botkin. "Pygmalion and the Student: Age and Classroom Differences in Children's Awareness of Teacher Expectations." Child Development 58.4 (1987): 1079-1093.

The purpose of this study was to investigate the ability of students to perceive and interpret verbal and nonverbal cues from their teacher and to investigate the extent to which these interpretations influenced their beliefs about themselves. Specifically, they investigated the effect of age on the extent of susceptibility of students to expectancy effects and whether the salience of expectancy cues can enhance or diminish susceptibility.

Through the administration of a variety of teacher treatment inventories and subsequent analysis, the researchers found that younger students report more frequent high expectations, choice, opportunity, negative feedback, less "work and rule" (1090) orientation and less differential teacher treatment than older students. First graders were as aware of differences in teacher treatment of high versus low achievers as were fifth graders. However, relative to their own student-teacher interactions, young children were less likely to report negative treatment and were less perceptive of teacher expectations toward themselves. Older (fifth grade) students were more aware of teacher expectations and showed more teacher-congruent self-expectations.

All grades reported more differential treatment in high-differential treatment classes than in low-differential treatment classes. However, older students showed more congruency between self and teacher ratings in low-differential treatment classes than in high-differential treatment classes.

Young children had a less complete understanding of the expectations of others. Perhaps, the authors noted, a perceived climate of differential treatment may contribute to the development of young children's expectations. Awareness of teacher expectations may be more critical for older children. Older children's expectations may be more firmly fixed than those of younger children.

SUMMARY

The research supports the notion that there are a variety of factors that are influential in teacher expectation effects. The following is a summary of those mentioned in this study.

Babad (1982) found no relationship between teachers' ethnic origin and their amount of expectations. Less experienced teachers showed more bias than more experienced teachers. Teachers preferring a traditional approach to instruction showed more bias than those with an open or eclectic approach to instruction.

Guskey (1982) was interested in what effect the implementation of mastery learning would have on teacher expectations. He found that teachers who experienced a positive change in their instructional effectiveness after using the technique were less accurate in their predictions of student achievement. He suggested that the introduction of mastery learning, with its feedback and correctives, allowed teachers to show less differential treatment toward students.

With respect to teachers' accuracy in predicting their students' responses to test items, research findings appear inconclusive. Coladarci (1986) found that teachers were very accurate in their predictions. However, some teachers were better predictors than others and some subjects were easier to predict than others. He also found that high achievers' answers were more accurately predicted than were those of low achievers.

Hoge and Butcher (1984) also found that teachers were quite accurate in their predictions. However, some tended to overestimate high achievers and underestimate low achievers.

Patriarca and Kragt (1986) also noted the over-under estimation effect. They found that teachers were accurate in their predictions of student achievement only 40 percent of the time. Agreeing with this assessment was Emans (1984) in his review of studies which showed that teachers cannot judge their students' reading abilities. He said that the teachers did a poor job of forming expectations and that their predictions were based subjective data.

In a study comparing adult and peer teachers, Harris, et al. (1986) found that student performance correlated positively with the amount of task orientation, explanation, nonverbal warmth and little task interruption. It was negatively correlated with negative feedback and off-task teaching behaviors. These were thought to be some of the behaviors that teachers differentially give to high- and low-achieving students.

Murphy and Hallinger (1985) found that effective schools generally have teachers with high expectations of themselves and their students. The teachers also felt responsible for student achievement.

In a synthesis of findings from other studies, Raudenbush (1984) reported that the better a teacher knew a student at the time of expectancy induction, the less the expectancy effect. With regard to IQ tests, he reported no expectancy differences between blind and aware test administrators.

In a study which had both teacher characteristics and student characteristics as the dependent variable, Tom, et al. (1984) found that high-authoritarian teachers had lower expectations for outgroup students than ingroup students. As for student character-

istics, they found middle-class students had higher predicted grades and future job status than lower-class students. Grades were expected to be higher for girls than for boys and for Asians than for whites.

In a somewhat similar study, Moore and Johnson (1983) statistically reexamined earlier data and found that job expectations for females clustered around white-collar and clerical jobs. For males, they clustered around skilled or unskilled worker or managerial occupations. Agreeing somewhat with the Tom, et al. (1984) study, they found that Asian students were classified into higher job categories than whites or Blacks.

Dusek and Joseph's (1983) meta-analysis agreed that social class and race were bases for expectations.

Another researcher (Cecil, 1988) found that Black-English-speaking students were rated by teachers as having a lower academic potential than standard-English-speaking students.

Recent research has not been entirely conclusive with regard to the impact of gender on teacher expectations. Dusek and Joseph (1983) reported that gender was not significantly related to expectations of academic achievement but that girls were favored in social achievement. Prawat and Jarvis (1980) also reported that gender had little effect on teacher expectations. Miller and Asher (1983) ran a different statistical test on the same data and found that gender did have an impact on teacher expectations. Their test results showed that females were often rated higher than males.

Kenealy, et al. (1988) also found that girls were rated higher than boys for sociability, popularity, academic achievement, confidence and leadership. Teachers' ratings of high attractiveness were related to the above categories as well. Dusek and Joseph's (1983) meta-analysis agreed with this position.

Aloia and MacMillan (1983) found that a label of Educable Mentally Retarded for a student lowered his or her expectations from teachers. Those students who were average in attractiveness and competency were most hurt by the label. Being highly attractive was not found to be a strong asset if combined with the EMR label.

In a related study, Richey and Ysseldyke (1983) found that teachers had lower expectations for the siblings of former students who were Learning Disabled and for hypothetical siblings of current LD students.

Rolison and Medway (1985) also found that teachers lower their expectations for LD versus non-LD students. Teachers expected more from improving students.

Of general interest was Gallagher and Tobin's (1987) study in which identified achievers and males were found to be more involved in science classes than other students. High-ability students tended to pace the class while low-ability students were given more busy work.

Van Oudenhoven and Siero (1985) found that nonbloomers were given more negative nonverbal feedback than bloomers. But teachers gave more verbal praise to nonbloomers as well. The authors suggested that nonverbal feedback is more difficult to control

than verbal feedback.

In a meta-analysis of seventy-seven studies, Dusek and Joseph (1983) found that a student's cumulative folder was related to expectations, but that teachers weigh the reliability of that information. Sex-role behavior, name stereotypes and siblings were weakly associated with teacher expectations.

Good (1981) reviewed the first decade of teacher expectation research. In his work, he described a model of how teacher expectations may be communicated. He listed basic research findings that lend support to the notion that differential teacher treatment based on expectations contributed to the process. He noted that the extent to which students influence expectation effects was not entirely clear.

From the point of view of cognitive dissonance theory, Bogner's (1982) research concluded that teachers tend to reject achievement test results that they consider are too high or too low for a particular student.

A study by Schultz (1983) investigated the sociopsychological climate of a classroom as a mediating effect of teacher expectations. He found that teachers may interpret the type of classroom climate a group of students desire and then provide such a climate for them.

Weinstein, et al. (1987) investigated the ability of students to perceive and interpret verbal and nonverbal cues and how this influenced their self-concept. They found that first graders reported less overall, but also different kinds of differential teacher treatment than fifth graders. Fifth graders were more aware than first graders of teacher expectations and showed more teacher-

congruent self expectations.

Cooper and Tom (1984) reviewed much of the literature on teacher expectation effects and proposed a model for how such effects may be communicated to students. This model involved the teachers' need to control interactions with low-expectation students.

Brattesani, et al. (1984) conducted a study which supported a student-mediated model for teacher expectation effects. They found that only in high-differential treatment classes did students perceive teacher treatment that was consistent with the expectation levels held by their teachers. Teacher expectations contributed more to the prediction of student expectations in high-differential treatment classes than in low-differential treatment classes.

CONCLUSIONS

This study was designed to be a brief review of recent literature regarding the impact of teacher expectations on student performance. The literature was organized in terms of teacher variables, student variables and mediating effects.

As for teacher variables, recent research shows that teachers with less experience, with authoritarian styles of teaching and those with little pre-expectancy induction experience with students tend to exhibit more expectation effects than others.

There was some disagreement in the literature with regard to the accuracy of teacher expectations. There is agreement that teachers' predictions of test scores tend to be overestimated for high achievers and underestimated for low achievers. Also, teachers are more accurate in predicting the scores of high achievers than low achievers.

Characteristics of students that contribute to expectation effects are social class, attractiveness, ethnicity and perhaps gender. The EMR label, siblings of LD-labeled students, academic history and perhaps name and sex-role stereotypes contribute to expectation effects as well.

Models generally suggest that teachers' expectations are communicated to students through differential teacher treatment. Another model suggests that a teacher's need to control low-expectation students contributes to the phenomenon.

Cognitive dissonance theory may explain how expectations are created. Information about a student that contradicts what a

teacher believes about a student may be rejected or assimilated to create new expectations about the student. In addition, the sociopsychological climate that a teacher assumes is appropriate may help form expectations.

Student awareness of expectations may be developmental, as there is evidence that older students respond to expectations more than younger students. High-differential treatment classes tend to be more susceptible to expectation effects than low-differential treatment classes.

RECOMMENDATIONS

It is recommended that:

- 1) Teachers become aware of the problem of teacher expectation bias. They should examine their own expectations and their interactions with low achieving students (Patriarca, et al. 1986).
- 2) Teachers be provided with feedback about their expectations through conversations with students, questionnaires, and perhaps a consultant (Patriarca, et al. 1986).
- 3) Teacher training programs be examined for they may be providing teachers with unrealistic expectations (Good, 1981). Beginning teachers may be inclined to overestimate their own abilities as teachers.
- 4) Teachers avoid subjectively based expectations and reward the efforts of low achievers. Teachers should reevaluate their expectations often (Cooper and Tom, 1984).

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Reason for Interest in Topic

The relationship between teacher expectations and student achievement has been recognized and studied for over twenty years. I believe that teachers routinely fall victim to it even today. Unconscious or not, the problem exists and all teachers, including myself, need to be aware of it and make a conscious effort to treat all students equally. Their academic future may well hang in the balance.